PATENT COOPERATION TREATY

PCT

TRANSLATION INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 0000055143	FOR FURTHER ACTION	See Form PCT/IPEA/416		
International application No.	International filing date (day/month/year)	Priority date (day/month/year)		
PCT/EP2004/013990	09.12.2004	11.12.2003		
International Patent Classification (IPC) or na	tional classification and IPC			
C08G18/48, C08G18/66	5, C08J9/32			
Applicant BASF AKTIENGESELLSCH	ı N E-M			
BASE ARTIENGESELLISCH	IAT I			
	iminary examination report, established by this the applicant according to Article 36.	s International Preliminary Examining Authority		
2. This REPORT consists of a total of	sheets, include	ling this cover sheet.		
3. This report is also accompanied by A	ANNEXES, comprising:			
a. (sent to the applicant an	d to the International Bureau) a total of	sheets, as follows:		
1 121		n amended and are the basis for this report and/or		
sheets containing r Instructions).	ectifications authorized by this Authority (see	Rule 70.16 and Section 607 of the Administrative		
I I I		onsiders contain an amendment that goes beyond		
the disclosure in the Box.	he international application as filed, as indicat	ed in item 4 of Box No. I and the Supplemental		
b. (sent to the Internationa	l Bureau only) a total of (indicate type and num	ber of electronic carrier(s))		
,	, J1			
related thereto, in compute	, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see			
Section 802 of the Admini	strative Instructions).			
4. This report contains indications related	ting to the following items:			
Box No. I Basis of th	ne report			
Box No. II Priority				
Box No. III Non-estab.				
Box No. IV Lack of un	nity of invention			
BON 110. 1				
Box No. VI Certain do	\bowtie			
Box No. VII Certain de	Box No. VII Certain defects in the international application			
Box No. VIII Certain observations on the international application				
Date of submission of the demand	Date of completion of	this report		
		•		
Name and mailing address of the IPEA/EP	Authorized officer	Authorized officer		
Facsimile No.	Telephone No.	Telephone No.		

International application No.
PCT/EP2004/013990

Box	No. I	Basis of the report				
1.		h regard to the language , this report is based on the internati cated under this item.	onal application in the language in which it was filed, unless otherwise			
	This report is based on translations from the original language into the following language which is the language of a translation furnished for the purposes of: international search (Rule 12.3 and 23.1(b)) publication of the international application (Rule 12.4) international preliminary examination (Rule 55.2 and/or 55.3)					
2.	With regard to the elements of the international application, this report is based on (replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report): the international application as originally filed/furnished the description:					
			as originally filed/furnished			
			received by this Authority on			
			received by this Authority on			
		the claims:				
		nos.				
			as amended (together with any statement) under Article 19			
		·	received by this Authority on/filed with the demand			
	\Box	nos.*	received by this Authority on			
	Ш	the drawings:				
		sheets	as originally filed/furnished			
		sheets*	received by this Authority on			
	\Box	sheets*	received by this Authority on			
	Ц	a sequence listing and/or any related table(s) – see Supplement	mental Box Relating to Sequence Listing.			
3.	Ш	The amendments have resulted in the cancellation of:				
		the description, pages				
		the claims, nos.				
		the drawings, sheets/figs	the drawings, sheets/figs			
		the sequence listing (specify):				
		any table(s) related to sequence listing (specify):				
4.		This report has been established as if (some of) the amer they have been considered to go beyond the disclosure as	dments annexed to this report and listed below had not been made, since filed, as indicated in the Supplemental Box (Rule 70.2(c)).			
		the description, pages				
		the claims, nos.				
		the drawings, sheets/figs				
		the sequence listing (specify):				
		any table(s) related to sequence listing (specify):				
*	If ite	em 4 applies, some or all of those sheets may be marked "su	perseded."			

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Box	Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement			
1.	Statement			
	Novelty (N)	Claims	1-9	YES
		Claims		NO
	Inventive step (IS)	Claims	1-9	YES
		Claims		NO
	Industrial applicability (L	A) Claims	1-9	YES
		Claims		NO

- 2. Citations and explanations (Rule 70.7)
 - 1. Cited documents
 - D1: DE 197 28 792 A1 (BAYER AG, 51373 LEVERKUSEN, DE) 7 January 1999 (1999-01-07)
 - D2: US-A-5 260 343 (HARRISON ET AL) 9
 November 1993 (1993-11-09)

2. Novelty

The present application relates to a syntactic polyurethane obtainable by reacting a polyisocyanate component (a) with a polyol component (b) in the presence of hollow microspheres (c). The polyol component (b) contains a polyether polyol based on a difunctional starter molecule (b1), a polyether polyol based on a trifunctional starter molecule having a molecular weight of 400-3500 (b2-1), a polyether polyol based on a trifunctional starter molecular having a molecular weight greater than 3500-8500 (b2-2) and a chain-lengthening agent (b3) (claim

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1). The present application also relates to the corresponding method (claim 5).

Furthermore, the present application relates to the use of a syntactic polyurethane obtainable by reacting a polyisocyanate component (a) with a polyol component (b) in the presence of hollow microspheres (c) for insulating offshore pipes (claim 6), to the corresponding offshore pipe (claim 7), and to the corresponding method for producing offshore pipes (claim 9). The polyol component (b) contains a polyether polyol based on a difunctional starter molecule (b1), a polyether polyol based on a trifunctional starter molecule (b2), and a chain-lengthening agent (b3).

D1 and D2 do not disclose a syntactic polyurethane obtainable from two polyether polyols based on a trifunctional starter molecule having a different molecular weight.

D1 does not relate to offshore pipes, but rather to windows and doors (see column 1, line 5). D2 does not relate to offshore pipes either, but to shoe soles and steering wheels (see column 2, lines 13 and 14).

Consequently, the subject matter of claims 1-9 of the present application is novel over D1 and D2.

Box No. V

Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

3. Inventive step

 $\underline{\text{D1}}$ is regarded as the closest prior art.

D1 discloses a syntactic polyurethane for insulating windows and doors, whereby a polyether polyol with a trifunctional starter molecule is used (see example 7; column 1, line 5).

The subject matter of the present patent differs from the subject matter of D1 in that two polyether polyols based on a trifunctional starter molecular with a different molecular weight are used (claims 1-5) and in that the syntactic polyurethane is used to insulate offshore pipes (claims 6-9).

The problem to be solved by the present application was that of providing polyurethanes for insulating offshore pipes (see page 1, line 41 to page 2, line 4) and of providing a further use of syntactic polyurethanes.

These problems were solved by using two polyether polyols based on a trifunctional starter molecule with a different molecular weight, and by using syntactic polyurethanes to insulate offshore pipes.

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Box No. V	No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement				
	These solutions are not suggested in D1. They				
	are not obvious from a combination of D1 and				
	D2, either.				
	Consequently, the subject matter of claims 1-				
	9 of the present application involves an				
	inventive step with respect to D1 and D2.				

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Box	No. VI	Certain documents cited				
1.	Certain pub	olished documents (Rule 70.10)				
		Application No. Patent No.	Publication date (day/month/year)	Filing date (day/month/yea	ır)	Priority date (valid claim) (day/month/year)
	EP	143323	23.06.2004	13.11.20	03	17.12.2002
2.	Non-writte	n disclosures (Rule 70.9)				
		Kind of non-written disclosure	Date of non-written dia (day/month/year		referring t	of written disclosure o non-written disclosure lay/month/year)
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